

Carson City District

Drought Management Plan

1/30/2013

This management plan contains a description of Drought Response Actions that would be used to alleviate the impacts of authorized uses and activities on natural resources that are at risk of being adversely affected by drought conditions. The Drought Response Actions would be implemented either separate or in combination upon reaching the criteria described under the Proposed Action of the Carson City District Drought Management EA. A more in depth discussion of these criteria can be found in the Drought Monitoring and Detection Plan

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Carson City District Drought Management Plan

1.0. Introduction

Drought, a normal part of the climate for virtually all regions of the United States, is of particular concern in the West, where an interruption of the region's already limited water supplies for extended periods of time can produce devastating impacts (Wilhite 1997). The Carson City District is located within the physiographic area known as the Basin and Range (or Great Basin) Province, which is characterized by discrete, north- or northeast-trending fault bounded mountain ranges, typically about 20 miles wide and less than 80 miles long, separated by narrow, deep, alluvium filled valleys. The varied topography, geology, soils, flora and fauna in the Carson City District are typical of the high (cold) desert. Drought is considered a recurring event within the Carson City District.

The early detection and prompt response to drought is needed to prevent further degradation to affected resources within the Carson City District. The purpose of this management plan is to describe the Drought Response Actions that would be implemented either separate or in combination upon reaching the criteria described within the Proposed Action of the Carson City District Drought Management Environmental Assessment and further defined in the Carson City District Drought Detection and Monitoring Plan. Drought Response Actions are designed to alleviate the impacts of authorized uses and activities on natural resources that are at risk of being adversely affected by drought conditions. They have been placed into different categories, due to the differing nature and capabilities for management of those resources and uses

2.0. Goals

The early response to drought conditions is necessary for effective management during drought. Lagged responses toward drought pose a threat to sustainable management of rangelands (Thurrow and Taylor 1999). The following list outlines the goals of the Carson City District Drought Management Plan:

Goal 1: Provide for the prompt response to drought conditions.

Goal 2: Prevent further degradation to affected resources on lands affected by drought within the Carson City District.

Goal 3: Clearly define Drought Response Actions that will be used to alleviate the impacts of authorized uses and activities on natural resources that are at risk of being adversely affected by drought.

Goal 4: Prevent the suffering and death of Wild Horses and Burros as a result of reduced forage and water resources due to drought conditions.

3.0 Drought Response Actions

The following Drought Response Actions would be implemented either separately or in combination upon reaching the criteria described under the Drought Response Triggers section on a site-specific basis. A more in depth discussion of each action can be found in the Drought

Management Plan (Appendix 1 of the Environmental Assessment). Drought Response Actions have been placed into different categories due to the differing nature and capabilities for management of those resources and uses. Drought Response Actions would be selected based on site-specific information. In areas where livestock and wild horse and burro use overlaps, both livestock and wild horse and burro Drought Response Actions could be implemented concurrently as determined necessary by Bureau of Land Management specialists and management. Follow-up monitoring by the Bureau of Land Management would evaluate whether the implemented Drought Response Actions were effective at mitigating resource degradation, if other actions should be implemented, or if permitted use could be increased to previously permitted levels of use.

3.1 Livestock

The following is a list of Drought Response Actions that would be used either separately or in combination to reduce the impacts of authorized livestock grazing on natural resources during drought.

A. Temporary Partial or Complete Closure of an Allotment(s)

During drought, the forage resources and overall condition of affected allotments would be assessed. Portions of an allotment(s) that lack forage and/or water, are in poor condition as identified by the Interdisciplinary Team, based on monitoring data, or are identified as critical areas to provide forage and/or water for wildlife and/or wild horses and burros could be closed to livestock grazing for the duration of the drought (43 Code of Federal Regulations §4710.5). Partial closures would be accomplished by employing a combination of the other Drought Response Actions such as temporary fencing, temporary water hauls, active livestock herding, strategic supplementation etc. If it is determined that aforementioned conditions exist over the entire allotment(s), complete closure would occur. Closures would be in effect for the duration of the drought plus one growing season following the cessation of the drought to allow for recovery. The U.S. Drought Monitor and Vegetation Drought Response Index in addition to site specific monitoring by the Interdisciplinary Team would be consulted to determine the cessation of the drought. Written notice signed by the Authorized Officer would be used to reopen areas to grazing.

B. Temporary Partial Reduction in Animal Unit Months

During drought, a reduction in livestock numbers could be necessary to ensure that adequate forage is available to meet wild horses and burros and livestock requirements. Reduced livestock grazing would prevent overutilization of key forage species and prevent further adverse impacts to rangeland resources that are already affected by drought.

C. Temporary Change in Season of Use

A change in the season of use could reduce livestock grazing related impacts during drought. The following modifications could be used either separately or in combination.

- Changing the season of use, or delaying the turnout, to a time period following the critical growth period (actual dates would vary with vegetation community type) of key forage species (Ecological Site Descriptions

correlated to specific locations would be consulted to determine key forage species) and Bureau of Land Management Sensitive Species. In instances where key forage species referenced in the Ecological Site Description are absent, key forage species would be identified using site-specific and/or past monitoring data.

- This would allow plants to utilize available soil moisture and any additional moisture received during the critical growth period. Plants would be able to complete their life cycle thus allowing for seed dissemination and root growth and replacement. Plants could then be grazed after sufficient growth or dormancy occurs. Repeated grazing during the critical growth period does not allow plants to regrow before soil moisture is depleted; therefore, plants may not have adequate resource reserves to survive winter dormancy.
- Defer livestock grazing in riparian areas during the hot season (approximately July 1 through September 30) to avoid the degradation of riparian areas during drought. Methods to accomplish this could include delaying turn-out until after the hot season or modification of pasture rotation in order to allow riparian pastures or pastures with a vulnerable riparian component rest during the hot season.

D. Temporary Reduced Grazing Duration

Moving livestock across an allotment or pasture more quickly would increase the amount of rest individual plants are given. Reducing grazing duration would increase a plant's ability to utilize available resources to regrow foliage, store carbohydrates reserves, and maintain vigor. Plants are unable to regrow if grazed repeatedly especially during times of limited soil moisture. Periods of deferment should be varied according to the rate of growth. Range plants initiate growth from meristems (i.e., growing points), once meristems are removed, plants must grow from basal buds which requires much more of the plants energy than regrowth from meristems. Plants that are continually forced to regrow from buds may reduce or even eliminate the production of new buds, which may reduce production in subsequent years (Howery 1999). During stress periods such as drought, growth slows and plants should be rested longer (Hanselka and White 1986). Reducing the duration of grazing would allow the plants to start the next growing season with energy reserves.

E. Temporary Change in Livestock Management Practices

The concentrated use of preferred areas in the landscape results in uneven distribution of animal impact, and periods of below average precipitation compound the effects of herbivory, providing periods of accelerated deterioration (Teague et al. 2004). Modification of grazing practices would improve livestock distribution. The following methods/tools could be used either separately or in combination to improve livestock distribution:

- Strategic placement of salt and/or mineral supplements away from water and in areas that was un-grazed or lightly grazed (21-40% utilization rate) in previous years.
- Increased herding of livestock to previously un-grazed or lightly grazed areas (21-40% utilization).
- Concentrating livestock into a single herd in order to increase control and encourage uniform grazing. This would force livestock to utilize more of the less-preferred plants while limiting repetitive or selective grazing of preferred forage species. Herd sizes would be dependent on water availability; therefore, adequate water sources must be present to provide water to wildlife, wild horses and burros and livestock while maintaining riparian functionality. Use would not exceed utilization and stubble heights identified in the Drought Response Triggers section of the Environmental Assessment.
- Approving applications for voluntary non-use or temporarily suspending use.

F. Temporary Fencing of Critical Areas

During drought, temporary electric fencing could be used to exclude livestock from critical areas such as riparian areas, meadows, aspen stands, critical wildlife habitat etc. Temporary fencing would not be used within 1.25 miles of active sage-grouse leks (Instruction Memorandum 2012-043). Temporary electric fences may also be used to confine livestock to areas dominated by invasive annual species. Temporary electric fences would be constructed using ¾ inch to 1 inch diameter fiberglass fence posts and two strands of electric fence polywire. Posts would be spaced at 16 feet apart. The height of the fence would be 30 inches with the bottom wire being 20 inches above the ground. Signs warning of electric fence would be firmly attached to the fence at common crossing points and at ¼ mile intervals along the fence.

G. Temporary Targeted Grazing of Invasive Annual Dominated Communities

Targeted grazing of communities dominated by invasive annuals (e.g., cheatgrass) could be used to alleviate grazing pressure on other areas that are dominated by native species. On these sites, prescribed livestock grazing could be applied to achieve maximum damage to annual grasses with little concern for non-target plants (Peischel and Henry 2006). Intensive grazing would be focused during the early spring and/or fall months to take advantage of early green up of these invasives before the growing season of desirable perennials and also in the fall when desirable species are dormant. Livestock would be removed upon reaching moderate utilization levels (41-60%) in order to provide some protection from wind and water erosion. Appropriate utilization levels provide adequate residual matter for the maintenance of plant health especially during a drought. Animals would be confined to these areas using temporary electric fence or herding. If an existing water source is not available, the use of temporary water hauls may be used. Invasive annual dominated communities would be identified through site-specific monitoring.

H. Temporary Change in Kind or Class of Livestock

According to Volesky et al. (1980), yearling cattle utilize pastures more uniformly over variable terrain than cows with calves or mixed classes. Cows and calves utilize forages nearest the water much more heavily than do yearlings. Therefore, selecting yearlings would improve grazing distribution and limit impacts to riparian areas.

Choosing a different kind of livestock could also affect how a range can be utilized. Sheep and goats can be herded more effectively which allows for greater control and provides an opportunity to limit impacts to critical areas such as riparian areas, meadows, aspen stands, critical wildlife habitat, etc. They also tend to eat a more varied diet of grasses, forbs, and shrubs vs. cattle and horses that prefer to mainly eat grasses. Temporary changes from cattle to sheep would not be authorized in areas of known bighorn sheep habitat or areas within nine miles of known bighorn sheep habitat. Currently there are no goat permits on the Carson City District; however this could be an option for some permittees.

I. Temporary Water Hauls

Temporary water hauls could be used in circumstances where:

- 1) Adequate forage exists to support wild horses and burros and the existing permitted number of livestock, but water resources are insufficient due to drought;
- 2) To improve livestock distribution in areas located long distances from existing water sources, which have received slight use (1-20% utilization) by livestock in previous years; or
- 3) To reduce or eliminate impacts to riparian and wetland areas.

Additionally, the Bureau of Land Management could authorize the use of temporary water hauls to augment existing water sources. Whenever possible, water haul sites would be located in areas dominated by invasive annual species in order to provide for targeted grazing of those species while providing rest of native perennial vegetation. Water haul sites would consist of livestock water troughs of various size and material, placed on public lands and filled as needed with portable water tenders or water trucks. Previously disturbed sites would be selected when available. All areas would be surveyed for cultural resources prior to implementation and escape ramps would be installed in water troughs to protect wildlife. All temporary water would be required to be removed once the drought is over or sooner as indicated by written notice signed by the Authorized Officer.

During the 2012/2013 grazing season the Bureau of Land Management Carson City District's Sierra Front Field Office authorized temporary water haul sites within the District for up to 30 days at each location. These areas received archaeological clearances prior to implementation and, to the extent possible, would be utilized for future water haul sites as they have already been cleared for use as a water haul site and would not need additional environmental analysis.

J. Temporary Use of Rested, Unused or Vacant Allotments

During drought, temporary use of unused, rested or vacant allotments where water and forage are available could be utilized to alleviate grazing pressure on allotments or pastures where forage production or water is lacking on an annual basis (43 Code of Federal Regulations 4130.6-2(a)). These temporary use authorizations would be limited to active permittees within the Carson City District; however temporary use would not be constricted to the allotment in which they are permitted to graze. Available forage would be identified through site specific monitoring by the Bureau of Land Management.

Under a temporary use permit, as appropriate, a temporary range improvement permit would also be granted to the permittee. Permittees would be responsible for ensuring that all range improvements in these allotments are in functioning order before turnout (43 Code of Federal Regulations 4120.3-1(c)). Temporary use may limit the use of that allotment the following year (i.e. that pasture may not be used the following year).

3.2 Wild Horses and Burros

The following is a list of Drought Response Actions that would be used either separately or in combination to ensure the welfare of wild horses and burros on public lands administered by the Bureau of Land Management. Wild horses and burros could be at risk of dehydration or starvation due to drought conditions; special considerations are needed for the management of wild horses and burros during drought. These Drought Response Actions would help reduce the impacts of wild horses and burros on rangeland resources adversely affected by drought while ensuring their welfare. Drought Response Actions would be selected on a case-by-case basis using site-specific monitoring data collected as outlined in the Drought Detection and Monitoring Plan.

A. Temporary Water Hauls

In circumstances where it is determined that adequate forage exists to maintain the existing population of wild horses and/or burros, but water resources are deficient due to drought conditions, the Bureau of Land Management could employ temporary water hauls to augment existing water sources. Water haul sites would consist of livestock water troughs of various size and material, placed on public lands and filled as needed using water trucks or trailers. Water haul locations would be determined based on animal population density and distribution, and placed in previously disturbed areas such as existing water sources that are dry or have inadequate flow, gravel pits or roadsides, to the extent possible. The use of water hauls would continue until the existing waters are able to support the population or a drought gather occurs. All areas would be surveyed for cultural resources prior to implementation and bird ramps would be installed in water troughs to protect birds.

B. Wild horse and burro removal

When it is determined that drought conditions have resulted in insufficient amounts of forage and/or water to support the existing population of wild horses and/or burros within a herd management area a drought gather would be conducted as a last resort method. Wild horses and burros would be removed from the range in order to prevent suffering and death due to drought conditions on the range and prevent further degradation of

resources affected by drought. A drought gather would be employed as a last resort and would only occur if the following conditions apply:

- 1) It is determined that drought conditions have resulted in insufficient amounts of forage and/or water to support the existing population of wild horses and/or burros within a Herd Management Area.
- 2) All other feasible Drought Response Actions have been exhausted and removal is needed for immediate protection of wild horses and burros and rangeland resources.

Pursuant to 43 Code of Federal Regulations §4710.5, areas of allotment(s) that overlap with the Herd Management Area(s) could be temporarily closed to livestock grazing if necessary to protect the health of wild horses and burros or their habitat. The livestock grazing closure would be in effect for the duration of the drought plus one growing season following the cessation of the drought. If a livestock grazing closure is implemented, wild horses and burros would be removed from the range at varying levels (see “removal numbers” below) in order to prevent suffering and death due to drought conditions on the range and prevent further degradation of resources affected by drought. Gathers would be completed by removing varying numbers and using the following methods, either separate or in combination (refer to Appendix 2 for a more detailed discussion). Gathers would be completed by removing varying numbers and using the following methods, either separate or in combination:

1. Helicopter capture

The helicopter-drive trapping method would be employed when bait or water trapping is not effective, feasible or appropriate. The use of roping from horseback could also be used when necessary. Multiple gather sites (traps) could be used to gather wild horses and/or burros from within and/or outside the herd management area boundaries.

2. Bait or Water Trapping

Where feasible and appropriate, the Bureau of Land Management could employ bait and/or water trapping in order to capture wild horses or burros that need to be removed from the range in response to drought. Bait or water trapping would be selected unless the following circumstances apply:

- the number of water sources results in horses/burros being too dispersed;
- The location of water sources are too remote and restrict access for trap set up and animal removal;
- The urgency of animal removal requires immediate action and utilization of alternate removal methods; or
- The number of animals needing to be removed is in excess of bait or water trapping capabilities. Water or bait trapping capabilities would vary depending on site-specific conditions.

Bait and water trapping involves the construction of small pens, and baiting animals into the pens with the use of hay, water or other supplements. Specialized one-way gates are often used to prevent the animals from leaving the trap once inside. Bait and water trapping methods are usually only effective in areas where water or forage is absent, resulting in high motivation for animals to enter the trap to access them. These situations may occur during drought emergencies. Typically, small groups of animals enter the traps at a time. This requires many days to weeks to remove a substantial number of animals from an area. This option could be employed where small numbers of animals need to be removed, where it is deemed that the geography and resources of the Herd Management Area would ensure success, or in combination with helicopter gathers

3. Removal Numbers

Removal numbers would be based on the assessment of forage, climate, water, rangeland health and the use of the range by wild horses or burros. Removal numbers would be identified to ensure that healthy animals remain on the range and have adequate resources for survival, and that rangeland degradation is minimized in order to allow for post drought recovery. The long term health and welfare of the wild horses, burros, and rangeland would be the overarching goal of a drought gather. The removal numbers would be determined on a case by case basis. A summary of the data, and rationale for the removal numbers would be documented in the Decision and gather plan issued prior to a gather commencing.

a. Removal of Sufficient Numbers of Animals to Achieve the Low Range of Appropriate Management Level

Where the assessment of forage and water indicates that some relief is needed through removal of excess wild horses and/or burros, a gather could be conducted to achieve the established low range of Appropriate Management Level. This would occur where the current population exceeds the low Appropriate Management Level, and adequate resources do not exist to maintain healthy wild horses or burros at the current population level. This option could be implemented in combination with temporary water hauls.

b. Removal of Sufficient Animals to Achieve the High Appropriate Management Level

This situation would apply when the population is in excess of the high Appropriate Management Level, and assessment of existing forage and water resources warrants limited removal of wild horses and/or burros to the high Appropriate Management Level. This would also be implemented to restrict the number of animals removed due to constraints on holding space and long term holding costs. This option could be implemented in combination with temporary water hauls.

c. Removal of Animals to a Point Below the low Appropriate Management Level

During a prolonged drought, forage and water resources could become severely limited to a point that wild horses and/or burros must be removed below the low range of Appropriate Management Level in order to prevent widespread suffering and death. The post gather population target would be determined based on the existence and reliability of remaining resources. This option would be implemented in order to prevent subsequent emergency conditions due to ongoing or worsening drought conditions. This option could be implemented in combination with temporary water hauls.

d. Complete Removal of All Animals in a Herd Management Area

In extreme situations, the complete lack of forage and/or water in certain locations could warrant the removal of all locatable wild horses and burros to prevent their death. This situation would only apply as a last resort, and could involve holding wild horses or burros in contract facilities with release back to the range when adequate resources exist. Subsequent re-release of horses and/or burros would be subject to Nevada and Washington Bureau of Land Management office approval and could occur several months after the gather, dependent upon when drought conditions have improved. If complete removal and subsequent release is chosen, population control methods, such as the fertility control vaccine PZP, could be implemented prior to wild horses being released back to the herd management area. Population controls would not be implemented in burro populations.

Population controls applied to wild horses released back to the range could be used in order to slow population growth rates, lengthen the time before another gather is necessary and enhance post drought resource recovery. Population controls include the application of fertility control vaccine to mares, and sex ratio modification to favor studs. Fertility control would be applied to all mares released to the range. Sex ratio adjustment could be applied alone or in combination with fertility control. Sex ratio adjustment would involve the release of studs and mares in a 60:40 ratio.

In extreme cases, where it is determined that fewer mares should be released to provide for animal welfare and the health of mares, fewer mares could be released resulting in sex ratios of 70:30. This would occur when large numbers of animals need to be removed from the range due to resource conditions and releasing additional studs would result in fewer horses needing to be removed from the range.

4. Type of removals

Depending on animal and rangeland conditions various removal strategies may be implemented ranging from a complete removal to a selective removal targeting

foals and lactating mares which are most vulnerable to deteriorating range conditions. On a larger herd management area animals may only need to be removed from certain areas or a certain segment of the population from certain areas. As an example certain situations may warrant that only animals with or expected to reach a body condition class of three be removed, however, if the range conditions are so severe even remaining horses with a higher score may need to be removed as they could be expected to deteriorate in the near future.

5. General gather info

The Bureau of Land Management would make every effort to place gather sites in previously disturbed areas, but if a new site needs to be used, a cultural resource inventory would be completed prior to using the new gather site. Gather sites would not be set up near greater sage-grouse leks, known populations of Sensitive Species; or in riparian areas, cultural resource sites, Wilderness Study Areas or congressionally designated Wilderness Areas. All gather sites, holding facilities, and camping areas on public lands would be recorded with Global Positioning System equipment, given to the Carson City District Invasive, Non-native Weed Coordinators, and then assigned for monitoring during the next several years following gather for invasive, non-native weeds. All gather and handling activities (including gather site selections) would be conducted in accordance with Standard Operating Procedures in Appendix A.

Gathered wild horses or burros would be sorted by age and sex and be transported to Bureau of Land Management holding facilities where they would be prepared for adoption and/or sale to qualified individuals who can provide them with a good home or for transfer to long-term grassland pastures. During gathers conducted during summer months, foals are often too young to wean. This is especially true during periods of stress when, due to the poor resources on the range, the mare's milk production is limited and foals are small or weak. In any case, the foals would be re-united with the mares (or jennies) as soon as sorted at the holding corrals. Efforts would be taken to identify foals and mares for pairing and carefully observe their behavior. Should foals be orphaned, foster homes would be found immediately that could provide supportive care.

Herd health and characteristics data would be collected as part of continued monitoring of the wild horse herds. Other data, including sex and age distribution, condition class information (using the Henneke rating system), color, size and other information may also be recorded for all gathered wild horses. Genetic baseline data could be collected to monitor the genetic health of the wild horses within the combined project area.

An Animal and Plant Inspection Service or other veterinarian may be on-site during the gather, as needed, to examine animals and make recommendations to the Bureau of Land Management for care and treatment of wild horses. All excess wild horses removed from within and outside the herd management areas would be available for adoption or sale to qualified individuals.

Any old, sick or lame horses or burros unable to maintain an acceptable body condition (greater than or equal to a Henneke body condition score of 3 or with serious physical defects such as club feet, severe limb deformities, or sway back would be humanely euthanized as an act of mercy. Decisions to humanely euthanize animals in field situations would be made in conformance with Bureau of Land Management policy (Washington Office Instruction Memorandum 2009-041). Refer to: http://www.blm.gov/wo/st/en/info/regulations/Instruction_Memos_and_Bulletins/national_instruction/2009/IM_2009-041.html.

3.3 Other Resources

The following is a list of Drought Response Actions that would be used either separately or in combination to ensure that vegetation and soils are not further impacted by different land uses and authorizations. These Drought Response Actions would help reduce the impacts to vegetative resources and soils during drought. Drought Response Actions would be selected on a case-by-case basis using site-specific monitoring data collected as outlined in the DDMP.

A. Off Highway Vehicle Management

Temporary closures to off highway vehicles, as provided for in 43 Code of Federal Regulations 8364.1 would be implemented to mitigate off highway vehicle use impacts on resources that are stressed by drought (including near surface water sources, in important wildlife habitat, etc...). A ¼ mile setback from all wildlife guzzlers would be implemented.

B. Recreation

In drought years, Special Recreation Permits should include stipulations that limit uses of the land near water sources and important habitats in order to mitigate drought effects on these resources. Staging areas, parking areas and any vehicle repair would be limited.

C. Wildlife Habitat Management

- 1) Temporary Water Hauls – where practicable, water would be hauled to critical wildlife habitat areas or areas where critical wildlife (Threatened and Endangered Species and candidate species) are congregating.
- 2) Temporary Water-Holding Facilities – where practicable, establish temporary water-holding facilities for critical wildlife habitat areas or areas where critical wildlife (Threatened and Endangered Species and candidate species) are congregating. .
- 3) Work with other users (such as private water right holders) and State Agencies (Nevada Division of Water Resources and/or Nevada Department of Wildlife) to maintain in stream flow in critical fish habitat.
- 4) Work with private land owners and water right holders to reduce pumping near critical riparian (e.g. fish) habitat.
- 5) Work with the Nevada Department of Wildlife to ensure guzzlers and water tanks are in good working order.
- 6) Work with producers/permittees that have water containment facilities to have tank overflows directed away from tank to create wet spots for wildlife.

D. Forestry

- 1) Seed Collection would be prohibited or restricted during times of drought on forest and vegetative resources that are stressed by drought conditions.
- 2) Temporary closures of areas with low elevation aspen stands that are stressed by drought. These areas would be closed to grazing, off highway vehicle use and other activities that damage vegetative and forestry resources until drought conditions ease.
- 3) Remove large pockets of dead trees and potential fire hazard by completing a site-specific “plan” targeting areas with Severe, Extreme or Exceptional drought intensities.

E. Lands and Realty

Consider and analyze water utilization and mitigation for all proposed projects. These mitigation measures would include, but not be limited to the following:

- 1) If the project requires the extraction of local surface water for dust abatement, pipeline testing, or similar activities, seasonal timing restrictions for construction periods to higher water seasons could be implemented.
- 2) Require water be hauled from offsite location(s) to the project area so as to not impact drought stricken areas.
- 3) Require the use of dust (control) palliatives, as appropriate in place of water during times of drought.
- 4) Require temporary protection measures to retain moisture for transplanted vegetation areas and/or seeded areas.

Literature Cited

- Hanselka, C.W. and L.D. White. 1986. Rangeland in dry years: drought effects on range, cattle, and management in livestock and wildlife management during drought. R.D. Brown (ed.) Ceasar Kleberg Wildlife Research Institute, Texas A&M University, Kingsville.
- Howery, L.D. 1999. Rangeland Management Before, During, and After Drought. College of Agriculture and Life Sciences, University of Arizona.
- Peischel A. and Henry D.D. Jr. 2006. Targeted Grazing: A natural approach to vegetation management and landscape enhancement. Centennial, CO: Cottrell Printing.
- Teague, W.R., Dowhower, S.L., and Waggoner, J.A.. 2004. Drought and grazing patch dynamics under different grazing management. *Journal of Arid Environments* 58:97-117.
- Thurow, T.L. and C.A. Taylor JR. 1999. Viewpoint: The role of drought in range Management. *Journal of Range Management* 52(5):413-419.
- Volesky, J.D., Schacht W.H., and Waller, S.S. 1980. G80-504 Proper Livestock Grazing Distribution on Rangeland (Revised February 1996). Historical Materials from University of Nebraska-Lincoln Extension. Paper 1315.
- Wilhite, D. 1997. Improving Drought Management in the West: The Role of Mitigation and Preparedness: Report to the Western Water Policy Review Advisory Commission. Springfield, Virginia” National Technical Information Service.

APPENDIX A

Wild Horse Gather Plan and Standard Operating Procedures

I. Gather Plan

The purpose of the gather plan is to outline the methods and procedures for conducting drought gather(s) to remove drought affected wild horses and/or burros from public lands administered by the Carson City District. Gather specific details would be discussed in a Decision issued prior to gather commencement.

A. Gather Area

The Gather Area could include any of the 17 wild horse or burro herd management areas administered by the Carson City District, including areas outside of herd management area boundaries and Herd Areas. Refer to Map 3, which displays the herd management areas administered by the Carson City District.

B. Administration of the Contract /Gather Operations

The National Wild Horse and Burro Gather Contract would be used to conduct drought gathers. Bureau of Land Management personnel would be responsible for overseeing the contract for the capture, care, aging, and temporary holding of wild horses from the capture area. Bureau of Land Management Wild Horse and Burro Specialists would be present during all aspects of the gather activities. Bureau of Land Management personnel may conduct small scale helicopter or bait/water trapping gathers.

Standard Operating Procedures described within this document would be utilized for the capture and handling of wild horses and burros. Standard Operating Procedures have been developed over time to ensure minimal impacts associated with gathering, handling, and transporting wild horses and burros and collecting herd data.

Gather “trap” corrals and central holding corrals would be necessary to complete the gather. Ideally, gather corrals would be established in areas of previous soil or vegetation disturbance (such as gravel pits, roads etc.), to avoid impacts to unaltered vegetation and soils. A cultural resources inventory would be conducted prior to the construction of gather corrals and temporary holding facilities. Refer to the Standard Operating Procedures, Section H for more detailed information.

A notice of intent to impound would be made public prior to the gather. Branded and/or claimed horses or burros would be transported to a temporary holding facility. Ownership would be determined under the estray laws of the State of Nevada by a Nevada Brand Inspector. Collection of gather fees and any appropriate trespass charges would be collected per Bureau of Land Management policy and regulation.

An Animal and Plant Inspection Service or private veterinarian would be on-call or on-site for the duration of the gather to provide recommendations to Wild Horse and Burro Specialists for care and treatment of sick or injured wild horses or burros. Consultation with the veterinarian may take place prior to the euthanasia of wild horses in accordance with Washington Office

Instruction Memorandum (IM 2009-041). Refer to Part H for more information about the euthanasia policy.

Precautions would be taken to ensure that young or weak foals are safely gathered and cared for appropriately. If a foal were determined to be an orphan, qualified adopters, the Northern Nevada Correctional Center, or volunteers would be contacted immediately to provide proper care for the foal. Milk replacer formula and electrolytes would be available to care for orphan foals if necessary.

C. General Overview of Wild Horse and Burro Gather Methods

The gather contractor supplies and transports all equipment needed to conduct a gather to a central location where Holding Corrals are constructed. These corrals consist of six or more pens constructed of sturdy panels, with a central alleyway and working/squeeze chute in the center. Corral panels are covered with snow fencing to keep animals calm, and water tanks located within the pens. The central alley and pen arrangement allows the Bureau of Land Management staff and the contractor to sort recently captured animals, separating animals to ship to the adoption facilities, and mares/jennies and foals from stallions/jacks to prevent fighting and injury. The pen arrangement allows the contractor to off-load animals from stock trailers into the pens, and facilitates the loading of the animals to be transported to facilities onto large straight deck trucks.

At various locations throughout the herd management area, smaller sets of gather corrals are constructed called “traps”. The trap or gather corrals consists of a series of pens made out of panels, and “wings” made out of jute netting that funnel wild horses or burros into the corrals as they are captured. Once captured, they are loaded into stock trailers and transported to the central Holding Corrals for sorting. Horses and burros may remain in the gather site or on the stock trailer for no time at all, or up to an hour or more while other groups of animals are brought to the gather corrals.

The contractor utilizes a helicopter and pilot to conduct gathers. Use of a helicopter is humane, safe and effective. Methods used in helicopter gathers are well established, and the contract pilots very skilled. Wild horses and burros settle down once gathered and do not appear more than slightly agitated as the helicopter brings in additional groups of animals.

The pilot locates groups of wild horses and burros within the gather area and guides them towards the gather corrals. In most cases, animals are allowed to travel at their own pace, and are not “pushed”. Distances are typically between 1 – 7 miles over mixed terrain which may consist of rolling foothills, or steeper terrain, drainages, ridges and valley bottoms. The horses and burros often follow their own trails. The pilot and the Bureau of Land Management staff monitor the condition of the animals to ensure their safety, checking for signs of exhaustion, injuries etc. The contractor and pilots are very skilled at designing and building gather corrals, and safely herding the horses and burros to them. Generally, wild horses and burros recover quickly from being captured. Distances that the animals travel are modified to account for summer temperatures, snow depth, animals in weakened condition, young foals, or older/lame animals. Under ideal conditions, some animals could be herded 10 miles or more at the discretion of the Contracting Officers Representative/Wild Horse and Burro Specialist.

A “Prada” horse is held and released at the mouth of the wings when the wild horses approach. A Prada horse is a domestic horse which has been trained to run from near the mouth of the wings to the trap. Wild horses upon seeing a Prada horse often follow the Prada horse into the trap. Once the animals are within the corrals the gates are closed and small foals or very weak adult animals separated. Animals are then moved to the temporary holding corral where unweaned foals and nursing mares are separated into one pen, male horses into another pen and dry mares into another pen.. Wild burros are less likely to enter the trap corrals and oftentimes riders on horseback come in behind them to push them the rest of the way. Burros are known to stop in the wings and refuse to enter the trap. They are also more difficult to work through the alleyway and pens.

Occasionally (and more frequently for difficult to gather areas) helicopter-assisted roping is implemented, in which the pilot moves a small group of animals to the gather area, which the crewmembers rope by horseback. This method often prevents overstressing the horses or burros from repeated attempts to move them into the gather corrals. The roped animals are then led to the corrals, or to awaiting stock trailers, or immobilized on the ground until they can be loaded into stock trailers.

Once horses or burros are loaded and transported to the Holding Corrals, they are sorted by the contractor’s staff and Bureau of Land Management employees. The contractor looks at the animals’ teeth to estimate age while held in the chute, and the Bureau of Land Management staff documents age, color, body condition and lactation status of the horse or burro. Aging wild horses, and especially burros is a process of estimation due to the type of wear that can occur to the teeth of a wild horse or burro on the range.

Injuries are noted and treated if needed. Once sorted, the animals are normally given hay and unlimited water, if no health concerns exist. During this time, the Bureau of Land Management may consult with a veterinarian to treat sick or injured animals, or make recommendations for euthanasia.

When there are enough horses or burros to transport to a Bureau of Land Management preparation, or adoption facility, they are loaded into the straight deck trailers that hold 35-45 wild horses depending upon their size. The trailers have three or four compartments so that mares/jennies, stallions/jacks and foals can be transported separately. It may require 3-8+ hours for the wild horses or burros to arrive at the adoption preparation facility. The Carson City District typically ships horses to National Wild Horse and Burro Center at Palomino Valley near Sparks, Nevada; or may ship horses to the facility at Ridgecrest, California Arizona, Gunnison Correctional Facility in Gunnison, UT, or Indian Lakes Facility in Fallon, NV if needed.

During sorting, the Bureau of Land Management staff identifies wild horses to be re-released back to the herd management area according to the objectives for the herd. Typically, wild burros are not released to the range. Mares may be held until the end of the gather so that fertility control can be given to them to slow future population growth rates. When it is time for the release, the mares and stallions are each loaded into separate stock trailers and transported back inside the herd management area near water sources, if possible. The rear of the trailer is

opened up, and the horses are allowed to step off and travel back into the herd management area. Sometimes the horses are released directly from the holding corrals if they are centrally located within the herd management area.

Before the wild horses or burros are transported to adoption facilities or released, hair is sampled for genetic testing. Data collected during the gather in conjunction with genetic analysis report will be incorporated into a Herd Management Area Plan in the future.

D. Data Collection

Wild Horse and Burro Specialists would be responsible for collecting population data. The extent to which data is collected may vary among the field offices to meet specific needs pertaining to each herd management area.

1) Hair Samples/Genetics Analysis

Hair samples could be collected and analyzed to establish genetic baseline data of wild horses and burros (genetic diversity, historical origins, unique markers, and norms for the population).

Wild Horse and Burro Specialists could collect a minimum sample size of 25 hair samples from both females and males in a ratio similar to the sex ratio released. Age would not be a defining factor in determining which animals to sample. Samples would be sent to Texas A&M University for analysis.

2) Herd Health and Viability Data Collection

Wild Horse and Burro Specialists would document information related to age, sex, color, overall health, pregnancy, or nursing status from each animal captured. An estimate of the number of animals evading capture would also be recorded.

Information on reproduction would be collected to the extent possible, through documentation of the wild horses and burros captured during the gather, and the age of any horses released following the gather.

3) Characteristics

Wild Horse and Burro Specialists would record color and size of the animals, and any characteristics as to type would be noted, if determined. Any incidence of negative genetic traits (parrot mouth, club foot etc.) or other abnormalities would be noted as well.

4) Condition Class

A body condition class score would be recorded based on the Henneke System. This would be recorded for the population in general and/or for specific animals if necessary.

E. Euthanasia

The Authorized Office (or designee) will make decisions regarding euthanasia, in accordance with Bureau of Land Management policy as expressed in Washington Office Instructional Memorandum No. 2009-041. A veterinarian may be called to make a diagnosis and final determination. Current Bureau of Land Management Standard Operating Procedures is to have a Veterinarian from Animal and Plant Inspection Service on site throughout the gather to observe

animal health and condition and provide input to Bureau of Land Management staff regarding the potential need to euthanize wild horses or burros on gathers. Euthanasia shall be done by the most humane method available. Authority for humane euthanasia of wild horses or burros is provided by the Wild Free-Roaming Horses and Burros Act of 1971, Section 3(b)(2)(A), 43 Code of Federal Regulations 4730.1, Bureau of Land Management Manual 4730 - Euthanasia of Wild horses and Burros and Disposal of Remains. The following are excerpted from Instruction Memorandum 2009-41:

A Bureau of Land Management authorized officer will euthanize or authorize the euthanasia of a wild horse or burro when any of the following conditions exist:

- (1) Displays a hopeless prognosis for life;*
- (2) Is affected by a chronic or incurable disease, injury, lameness or serious physical defect (includes severe tooth loss or wear, club foot, and other severe acquired or congenital abnormalities);*
- (3) Would require continuous treatment for the relief of pain and suffering in a domestic setting;*
- (4) Is incapable of maintaining a Henneke body condition score (see Attachment 1) greater than or equal to 3, in its present environment;*
- (5) Has an acute or chronic illness, injury, physical condition or lameness that would not allow the animal to live and interact with other horses, keep up with its peers or maintain an acceptable quality of life constantly or for the foreseeable future;*
- (6) Where a State or Federal animal health official orders the humane destruction of the animal(s) as a disease control measure;*
- (7) Exhibits dangerous characteristics beyond those inherently associated with the wild characteristics of wild horses and burros.*

When euthanasia will be performed and how decisions will be made and recorded in a variety of circumstances is described below.

Euthanasia in field situations (includes on-the-range and during gathers):

(A) If an animal is affected by a condition as described in 1-7 above that causes acute pain or suffering and immediate euthanasia would be an act of mercy, the authorized officer must promptly euthanize the animal.

(B) The authorized officer will report actions taken during gather operations in the comment section of the daily gather report (Attachment 2). Documentation will include a brief description of the animal's condition and reference the applicable criteria (including 1-7 above or other provisions of this policy). The authorized officer will

release or euthanize wild horses and burros that will not tolerate the handling stress associated with transportation, adoption preparation or holding. However, the authorized officer should, as an act of mercy, euthanize, not release, any animal which exhibits significant tooth loss or wear to the extent their quality of life would suffer.

(C) If euthanasia is performed during routine monitoring, the Field Manager will be notified of the incident as soon as practical after returning from the field.

I. Special Stipulations

- 1) Private landowners or the proper administering agency(s) would be contacted and authorization obtained prior to setting up gather corrals on any lands which are not administered by Bureau of Land Management. Wherever possible, gather corrals would be constructed in such a manner as to not block vehicular access on existing roads.
- 2) Traps and gather corrals would be constructed so that no riparian vegetation is contained within them. No vehicles would be operated on riparian vegetation or on saturated soils associated with riparian/wetland areas.
- 3) Archeological clearance by a Bureau of Land Management archaeologist or District Archeology Technician of gather corrals, holding corrals, and areas of potential effects would occur prior to construction of gather corrals and holding corrals. If cultural resources were encountered, those locations would not be utilized unless they could be modified to avoid impacts. Due to the inherent nature of wild horse gathers, gather corrals and holding corrals would be identified just prior to use in the field. As a result, Cultural Resource staff would coordinate with Wild Horse and Burro personnel to inventory proposed locations as they are identified, and complete required documentation.
- 4) Wilderness Study Areas: When gathering wild horses from within Wilderness Study Areas, applicable policy will be strictly adhered to. Only approved roads will be traveled on. A Wilderness Specialist or designee would be present to ensure that only inventoried ways or cherry stemmed roads are traveled on by vehicles within the Wilderness Study Areas.
- 5) Wildlife stipulations
The following stipulations would be applied as appropriate.
 - a. Sage Grouse
 - i. Avoid active leks (strutting grounds) by 2 miles. March 1- May 15.
 - ii. Avoid riparian areas, springs, and wet meadows during brood-rearing. April 1 – August 15.
 - iii. Minimize and mitigate disturbance to the vegetation in all known sage grouse habitat.

- b. Raptors
 - i. The helicopter would avoid eagles and other raptors, and would not be flown repeatedly over any identified active raptor nests. Avoid active raptor nests by 2 miles. March 15-July 1.
- c. Big Game
 - i. No unnecessary aircraft use would occur over big game on their winter range or active fawning/calving grounds during the period of use.
- d. Site establishment, construction, and operation of traps and gather corrals will avoid adverse impacts to wildlife species, including threatened, endangered, or sensitive species, and their habitat.

II. Standard Operating Procedures for Wild Horse and Burro Gathers

Gathers would be conducted by utilizing contractors from the National Wild Horse and Burro Gather Contract, or Bureau of Land Management personnel. The following procedures for gathering and handling wild horses or burros would apply whether a contractor or Bureau of Land Management personnel conduct a gather. For helicopter gathers conducted by Bureau of Land Management personnel, gather operations will be conducted in conformance with the *Wild Horse Aviation Management Handbook H-4740-1* (January 2009).

Prior to any gathering operation, the Bureau of Land Management will provide for a pre-capture evaluation of existing conditions in the gather area(s). The evaluation will include animal conditions, prevailing temperatures, drought conditions, soil conditions, road conditions, and a topographic map with wilderness boundaries, the location of fences, other physical barriers, and acceptable trap locations in relation to animal distribution. The evaluation will determine whether the proposed activities will necessitate the presence of a veterinarian during operations. If it is determined that a large number of animals may need to be euthanized or capture operations could be facilitated by a veterinarian, these services would be arranged before the capture would proceed. The contractor will be apprised of all conditions and will be given instructions regarding the capture and handling of animals to ensure their health and welfare is protected.

Gather corrals and temporary holding sites will be located to reduce the likelihood of injury and stress to the animals, and to minimize potential damage to the natural resources of the area. These sites would be located on or near existing roads.

The primary capture methods used in the performance of gather operations include:

1. Helicopter Assisted Trapping. This capture method involves utilizing a helicopter to direct wild horses or burros into a temporary corral.
2. Helicopter Assisted Roping. This capture method involves utilizing a helicopter to herd wild horses or burros to ropers.

3. Bait Trapping. This capture method involves utilizing bait (e.g., water or feed) to lure wild horses or burros into a temporary corral.

The following procedures and stipulations will be followed to ensure the welfare, safety, and humane treatment of wild horses and burros in accordance with the provisions of 43 Code of Federal Regulations 4700.

A. Capture Methods used in the Performance of Gather Contract Operations

1. The primary concern of the contractor is the safe and humane handling of all animals captured. All capture attempts shall incorporate the following:

All gather corral and holding facilities locations must be approved by the Contracting Officer's Representative and/or the Project Inspector prior to construction. The Contractor may also be required to change or move corral locations as determined by the Contracting Officer's Representative/Project Inspector. All gather corrals and holding facilities not located on public land must have prior written approval of the landowner.

2. The rate of movement and distance the animals travel shall not exceed limitations set by the Contracting Officer's Representative who will consider terrain, physical barriers, access limitations, weather, extreme temperature (high and low), condition of the animals, urgency of the operation (animals facing drought, starvation, fire rehabilitation, etc.) and other factors. In consultation with the contractor the distance the animals travel will account for the different factors listed above and concerns with each herd management area.
3. All gather corrals, wings, and holding facilities shall be constructed, maintained and operated to handle the animals in a safe and humane manner and be in accordance with the following:
 - a. Gather corrals and holding facilities shall be constructed of portable panels, the top of which shall not be less than 72 inches high for horses and 60 inches for horses, and the bottom rail of which shall not be more than 12 inches from ground level. All gather corrals and holding facilities shall be oval or round in design.
 - b. All loading chute sides shall be a minimum of 6 feet high and shall be fully covered, plywood, metal without holes larger than 2"x4".
 - c. All runways shall be a minimum of 30 feet long and a minimum of 6 feet high for horses, and 5 feet high for horses, and shall be covered with plywood, burlap, plastic snow fence or like material a minimum of 1 foot to 5 feet above ground level for horses and 1 foot to 6 feet for burros. The location of the government furnished portable fly chute to restrain, age, or provide additional care for the animals shall be placed in the runway in a manner as instructed by or in concurrence with the Contracting Officers Representative/Project Inspector.

- d. All crowding pens including the gates leading to the runways shall be covered with a material which prevents the animals from seeing out (plywood, burlap, plastic snow fence, etc.) and shall be covered a minimum of 1 foot to 5 feet above ground level for horses and 2 feet to 6 feet for burros.
 - e. All pens and runways used for the movement and handling of animals shall be connected with hinged self-locking or sliding gates.
4. No modification of existing fences will be made without authorization from the Contracting Officer's Representative/Project Inspector. The Contractor shall be responsible for restoration of any fence modification which he has made.
 5. When dust conditions occur within or adjacent to the trap or holding facility, the Contractor shall be required to wet down the ground with water.
 6. Alternate pens, within the holding facility shall be furnished by the Contractor to separate mares or mares with small foals, sick and injured animals, estrays, or other animals the Contracting Officer's Representative determines need to be housed in a separate pen from the other animals. Animals shall be sorted as to age, number, size, temperament, sex, and condition when in the holding facility so as to minimize, to the extent possible, injury due to fighting and trampling. Under normal conditions, the government will require that animals be restrained for the purpose of determining an animal's age, sex, or other necessary procedures. In these instances, a portable restraining chute may be necessary and will be provided by the government. Alternate pens shall be furnished by the Contractor to hold animals if the specific gathering requires that animals be released back into the capture area(s). In areas requiring one or more satellite gather corrals, and where a centralized holding facility is utilized, the contractor may be required to provide additional holding pens to segregate animals transported from remote locations so they may be returned to their traditional ranges. Either segregation or temporary marking and later segregation will be at the discretion of the Contracting Officer's Representative.
 7. The Contractor shall provide animals held in the gather corrals and/or holding facilities with a continuous supply of fresh clean water at a minimum rate of 10 gallons per animal per day. Animals held for 10 hours or more in the gather corrals or holding facilities shall be provided good quality hay at the rate of not less than two pounds of hay per 100 pounds of estimated body weight per day. An animal that is held at a temporary holding facility through the night is defined as a horse/horse feed day. An animal that is held for only a portion of a day and is shipped or released does not constitute a feed day.
 8. It is the responsibility of the Contractor to provide security to prevent loss, injury, or death of captured animals until delivery to final destination.
 9. The Contractor shall restrain sick or injured animals if treatment is necessary. The Contracting Officer's Representative/Project Inspector will determine if animals must be euthanized and provide for the destruction of such animals. The Contractor may be

required to humanely euthanize animals in the field and to dispose of the carcasses as directed by the Contracting Officer's Representative/Project Inspector.

10. Animals shall be transported to final their destination from temporary holding facilities within 24 hours after capture unless prior approval is granted by the Contracting Officers Representative/Project Inspector for unusual circumstances. Animals to be released back into the herd management area following gather operations may be held up to 21 days or as directed by the Contracting Officer's Representative/Project Inspector. Animals shall not be held in gather corrals and/or temporary holding facilities on days when there is no work being conducted except as specified by the Contracting Officer's Representative/Project Inspector. The Contractor shall schedule shipments of animals to arrive at final destination between 7:00 a.m. and 4:00 p.m. No shipments shall be scheduled to arrive at final destination on Sunday and Federal holidays, unless prior approval has been obtained by the Contracting Officer's Representative. Animals shall not be allowed to remain standing on trucks while not in transport for a combined period of greater than three (3) hours in any 24 hour period. Animals that are to be released back into the capture area may need to be transported back to the original gather site. This determination will be at the discretion of the Contracting Officer's Representative.

B. Capture Methods That May Be Used in the Performance of a Gather

1. Capture attempts may be accomplished by utilizing bait (feed, water, mineral licks) to lure animals into a temporary gather corral. If the contractor selects this method the following applies:
 - a. Finger gates shall not be constructed of materials such as "T" posts, sharpened willows, etc., that may be injurious to animals.
 - b. All trigger and/or trip gate devices must be approved by the Contracting Officer's Representative/Project Inspector prior to capture of animals.
 - c. Gather corrals shall be checked a minimum of once every 10 hours.
2. Capture attempts may be accomplished by utilizing a helicopter to drive animals into a temporary trap. If the contractor selects this method the following applies:
 - a. A minimum of two saddle-horses shall be immediately available at the trap site to accomplish roping if necessary. Roping shall be done as determined by the Contracting Officer's Representative/Project Inspector. Under no circumstances shall animals be tied down for more than one half hour.
 - b. The contractor shall assure that foals shall not be left behind, and orphaned.
3. Capture attempts may be accomplished by utilizing a helicopter to drive animals to ropers. If the contractor with the approval of the Contracting Officer's Representative/Project Inspector selects this method the following applies:

- a. Under no circumstances shall animals be tied down for more than one half hour.
- b. The contractor shall assure that foals shall not be left behind, or orphaned.
- c. The rate of movement and distance the animals travel shall not exceed limitations set by the Contracting Officer's Representative/Project Inspector who will consider terrain, physical barriers, weather, condition of the animals and other factors.

C. Use of Motorized Equipment

1. All motorized equipment employed in the transportation of captured animals shall be in compliance with appropriate State and Federal laws and regulations applicable to the humane transportation of animals. The Contractor shall provide the Contracting Officer's Representative/Project Inspector with a current safety inspection (less than one year old) for all motorized equipment and tractor-trailers used to transport animals to final destination.
2. All motorized equipment, tractor-trailers, and stock trailers shall be in good repair, of adequate rated capacity, and operated so as to ensure that captured animals are transported without undue risk or injury.
3. Only tractor-trailers or stock trailers with a covered top shall be allowed for transporting animals from trap site(s) to temporary holding facilities, and from temporary holding facilities to final destination(s). Sides or stock racks of all trailers used for transporting animals shall be a minimum height of 6 feet 6 inches from the floor. Single deck tractor-trailers 40 feet or longer shall have two (2) partition gates providing three (3) compartments within the trailer to separate animals. Tractor-trailers less than 40 feet shall have at least one partition gate providing two (2) compartments within the trailer to separate the animals. Compartments in all tractor-trailers shall be of equal size plus or minus 10 percent. Each partition shall be a minimum of 6 feet high and shall have a minimum 5 foot wide swinging gate. The use of double deck tractor-trailers is unacceptable and shall not be allowed.
4. All tractor-trailers used to transport animals to final destination(s) shall be equipped with at least one (1) door at the rear end of the trailer, which is capable of sliding either horizontally or vertically. The rear door(s) of tractor-trailers and stock trailers must be capable of opening the full width of the trailer. Panels facing the inside of all trailers must be free of sharp edges or holes that could cause injury to the animals. The material facing the inside of all trailers must be strong enough so that the animals cannot push their hooves through the side. Final approval of tractor-trailers and stock trailers used to transport animals shall be held by the Contracting Officer's Representative/Project Inspector.
5. Floors of tractor-trailers, stock trailers and loading chutes shall be covered and maintained with wood shavings to prevent the animals from slipping.

6. Animals to be loaded and transported in any trailer shall be as directed by the Contracting Officer's Representative/Project Inspector and may include limitations on numbers according to age, size, sex, temperament and animal condition. The following minimum square feet per animal shall be allowed in all trailers:
 - 11 square feet per adult horse (1.4 linear foot in an 8 foot wide trailer);
 - 8 square feet per adult horse (1.0 linear foot in an 8 foot wide trailer);
 - 6 square feet per horse foal (.75 linear foot in an 8 foot wide trailer);
 - 4 square feet per horse foal (.50 linear feet in an 8 foot wide trailer).
7. The Contracting Officer's Representative/Project Inspector shall consider the condition and size of the animals, weather conditions, distance to be transported, or other factors when planning for the movement of captured animals. The Contracting Officer's Representative/Project Inspector shall provide for any brand and/or inspection services required for the captured animals.
8. If the Contracting Officer's Representative/Project Inspector determines that dust conditions are such that the animals could be endangered during transportation, the Contractor will be instructed to adjust speed.

D. Safety and Communications

1. The Contractor shall have the means to communicate with the Contracting Officer's Representative/Project Inspector and all contractor personnel engaged in the capture of wild horses utilizing a VHF/FM Transceiver or VHF/FM portable Two-Way radio. If communications are ineffective the government will take steps necessary to protect the welfare of the animals.
 - a. The proper operation, service and maintenance of all contractor furnished property is the responsibility of the Contractor. The Bureau of Land Management reserves the right to remove from service any contractor personnel or contractor furnished equipment which, in the opinion of the contracting officer or Contracting Officer's Representative/Project Inspector violate contract rules, are unsafe or otherwise unsatisfactory. In this event, the Contractor will be notified in writing to furnish replacement personnel or equipment within 48 hours of notification. All such replacements must be approved in advance of operation by the Contracting Officer or his/her representative.
 - b. The Contractor shall obtain the necessary FCC licenses for the radio system
 - c. All accidents occurring during the performance of any task order shall be immediately reported to the Contracting Officer's Representative/Project Inspector.
2. Should the contractor choose to utilize a helicopter the following will apply:

- a. The Contractor must operate in compliance with Federal Aviation Regulations, Part 91. Pilots provided by the Contractor shall comply with the Contractor's Federal Aviation Certificates, applicable regulations of the State in which the gather is located.
- b. Fueling operations shall not take place within 1,000 feet of animals.

E. Site Clearances

Personnel working at gather sites will be advised of the illegality of collecting artifacts. Prior to setting up a trap or temporary holding facility, Bureau of Land Management will conduct all necessary clearances (archaeological, T&E, etc.). All proposed site(s) must be inspected by a government archaeologist (or designee). Once archaeological clearance has been obtained, the trap or temporary holding facility may be set up. Said clearance shall be arranged for by the Contracting Officers Representative, Project Inspector, or other Bureau of Land Management employees.

Gather sites and temporary holding facilities would not be constructed on wetlands, riparian zones or weed infested areas.

G. Public Participation

Opportunities for public viewing (i.e. media, interested public) of gather operations would be made available to the extent possible; however, the primary considerations will be to protect the health, safety, and welfare of the animals being gathered and the personnel involved. The public must adhere to guidance from the on-site Bureau of Land Management representatives. It is Bureau of Land Management policy that the public will not be allowed to come into direct contact with wild horses or burros being held in Bureau of Land Management facilities. Only authorized Bureau of Land Management personnel or contractors may enter the corrals or directly handle the animals. The general public may not enter the corrals or directly handle the animals at any time or for any reason during Bureau of Land Management operations (refer to Appendix C, D, and E).

H. Responsibility and Lines of Communication

The Contracting Officer's Representatives and the Project Inspectors have the direct responsibility to ensure the Contractor's compliance with the contract stipulations. Wild Horse and Burros Specialists would serve as the primary Contracting Officer's Representative. Alternate Contracting Officer's Representative and Project Inspector(s) would be selected prior to the start of the gather. The Supervisory Natural Resources Specialist and Field Manager will take an active role to ensure the appropriate lines of communication are established between the field, Field Office, State Office, National Program Office, and Bureau of Land Management Holding Facility offices. All employees involved in the gather operations will keep the best interests of the animals at the forefront at all times.

All publicity, formal public contact and inquiries will be handled through the Nevada State Office and Carson City District Office Public Affairs Officer. These individuals will be the primary contact and will coordinate with the Contracting Officer's Representative on any inquiries.

The Contracting Officer's Representative will coordinate with the contractor and the Bureau of Land Management corrals to ensure animals are being transported from the capture site in a safe and humane manner and are arriving in good condition.

The contract specifications require humane treatment and care of the animals during removal operations. These specifications are designed to minimize the risk of injury and death during and after capture of the animals. The specifications will be vigorously enforced.

Should the contractor show negligence and/or not perform according to contract stipulations, he will be issued written instructions, stop work orders, or defaulted.

APPENDIX B

Standard Operating Procedures for Fertility Control Treatment

22-month time-release pelleted vaccine:

The following implementation and monitoring requirements are part of the Proposed Action:

1. PZP vaccine would be administered only by trained Bureau of Land Management personnel or collaborating research partners.
2. Mares that have never been treated would receive 0.5 cc of PZP vaccine emulsified with 0.5 cc of Freund's Modified Adjuvant (FMA). Mares identified for re-treatment receive 0.5 cc of the PZP vaccine emulsified with 0.5 cc of Freund's Incomplete Adjuvant (FIA).
3. The fertility control drug is administered with two separate injections: (1) a liquid dose of PZP is administered using an 18-gauge needle primarily by hand injection; (2) the pellets are preloaded into a 14-gauge needle. These are delivered using a modified syringe and jabstick to inject the pellets into the gluteal muscles of the mares being returned to the range. The pellets are designed to release PZP over time similar to a time-release cold capsule.
4. Delivery of the vaccine would be by intramuscular injection into the gluteal muscles while the mare is restrained in a working chute. The primer would consist of 0.5 cc of liquid PZP emulsified with 0.5 cc of Freund's Modified Adjuvant (FMA). The pellets would be loaded into the jabstick for the second injection. With each injection, the liquid or pellets would be injected into the left hind quarters of the mare, above the imaginary line that connects the point of the hip (hook bone) and the point of the buttocks (pin bone).
5. In the future, the vaccine may be administered remotely using an approved long range darting protocol and delivery system if or when that technology is developed.
6. All treated mares will be freeze-marked on the hip or neck herd management area managers to positively identify the animals during the research project and at the time of removal during subsequent gathers.

Monitoring and Tracking of Treatments:

1. At a minimum, estimation of population growth rates using helicopter or fixed-wing surveys will be conducted before any subsequent gather. During these surveys it is not necessary to identify which foals were born to which mares; only an estimate of population growth is needed (i.e. # of foals to # of adults).
2. Population growth rates of herds selected for intensive monitoring will be estimated every year post-treatment using helicopter or fixed-wing surveys. During these surveys it is not necessary to identify which foals were born to which mares, only an estimate of population growth is needed (i.e. # of foals to # of adults). If, during routine herd management area field monitoring (on-the-ground), data describing mare to foal ratios

can be collected, these data should also be shared with the NPO for possible analysis by the USGS.

3. A PZP Application Data sheet will be used by field applicators to record all pertinent data relating to identification of the mare (including photographs if mares are not freeze-marked) and date of treatment. Each applicator will submit a PZP Application Report and accompanying narrative and data sheets will be forwarded to the NPO (Reno, Nevada). A copy of the form and data sheets and any photos taken will be maintained at the field office.
4. A tracking system will be maintained by NPO detailing the quantity of PZP issued, the quantity used, disposition of any unused PZP, the number of treated mares by herd management area, field office, and State along with the freeze-mark(s) applied by herd management area and date.

APPENDIX C

Daily Visitation Protocol and Ground Rules



Daily Visitation Protocol and Ground Rules Gathers



Bureau of Land Management recognizes and respects the right of interested members of the public and the press to observe a wild horse gather. At the same time, Bureau of Land Management must ensure the health and safety of the public, Bureau of Land Management's employees and contractors, and America's wild horses. Accordingly, Bureau of Land Management developed these rules to maximize the opportunity for reasonable public access to the gather while ensuring that Bureau of Land Management's health and safety responsibilities are fulfilled. Failure to maintain safe distances from operations at the gather and temporary holding sites could result in members of the public inadvertently getting in the path of the wild horses or gather personnel, thereby placing themselves and others at risk, or causing stress and potential injury to the wild horses and burros.

The Bureau of Land Management and the contractor's helicopter pilot must comply with 14 Code of Federal Regulations Part 91 of the Federal Aviation Regulations, which determines the minimum safe altitudes and distance people must be from the aircraft. To be in compliance with these regulations, the viewing location at the gather site and holding corrals must be approximately 500 feet from the operating location of the helicopter at all times. The viewing locations may vary depending on topography, terrain and other factors.

General Daily Protocol

- A Wild Horse Gather Info Phone Line will be set up prior to the gather so the public can call for daily updates on gather information and statistics. Visitors are strongly encouraged to check the phone line the evening before they plan to attend the gather to confirm the gather and their tour of it is indeed taking place the next day as scheduled (weather, mechanical issues or other things may affect this) and to confirm the meeting location.
- Visitors must direct their questions/comments to either their designated Bureau of Land Management representative or the Bureau of Land Management spokesperson on site, and not engage other Bureau of Land Management/contractor staff and disrupt their gather duties/responsibilities - professional and respectful behavior is expected of all. Bureau of Land Management may make the Bureau of Land Management staff available during down times for a Q&A session. However, the contractor and its staff will not be available to answer questions or interact with visitors.
- Observers must provide their own 4-wheel drive high clearance vehicle, appropriate shoes, winter clothing, food and water. Observers are prohibited from riding in government and contractor vehicles and equipment.
- Gather operations may be suspended if bad weather conditions create unsafe flying conditions.

- Bureau of Land Management will establish one or more observation areas, in the immediate area of the gather and holding sites, to which individuals will be directed. These areas will be placed so as to maximize the opportunity for public observation while providing for a safe and effective horse gather. The utilization of such observation areas is necessary due to the use and presence of heavy equipment and aircraft in the gather operation and the critical need to allow Bureau of Land Management personnel and contractors to fully focus on attending to the needs of the wild horses and burros while maintaining a safe environment for all involved. In addition, observation areas will be sited so as to protect the wild horses from being spooked, startled or impacted in a manner that results in increased stress.
- Bureau of Land Management will delineate observation areas with yellow caution tape (or a similar type of tape or ribbon).
- Visitors will be assigned to a specific Bureau of Land Management representative and must stay with that person at all times.
- Visitors are NOT permitted to walk around the gather site or temporary holding facility unaccompanied by their Bureau of Land Management representative.
- Observers are prohibited from climbing/trespassing onto or in the trucks, equipment or corrals, which is the private property of the contractor.
- When Bureau of Land Management is using a helicopter or other heavy equipment in close proximity to a designated observation area, members of the public may be asked to stay by their vehicle for some time before being directed to an observation area once the use of the helicopter or the heavy machinery is complete.
- When given the signal that the helicopter is close to the gather site bringing horses in, visitors must sit down in areas specified by Bureau of Land Management representatives and must not move or talk as the horses are guided into the corral.
- Individuals attempting to move outside a designated observation area will be requested to move back to the designated area or to leave the site. Failure to do so may result in citation or arrest. It is important to stay within the designated observation area to safely observe the wild horse gather.
- Observers will be polite, professional and respectful to Bureau of Land Management managers and staff and the contractor/employees. Visitors who do not cooperate and follow the rules will be escorted off the gather site by Bureau of Land Management law enforcement personnel, and will be prohibited from participating in any subsequent observation days.
- Bureau of Land Management reserves the right to alter these rules based on changes in circumstances that may pose a risk to health, public safety or the safety of wild horses (such as weather, lightening, wildfire, etc.).

Public Outreach and Education Day-Specific Protocol

A public outreach and education day provides a more structured mechanism for interested members of the public to see the wild horse gather activities at a given site. On this day, Bureau

of Land Management attempts to allow the public to get an overall sense of the gather process and has available staff who can answer questions that the public may have. The public rendezvous at a designated place and are escorted by Bureau of Land Management representatives to and from the gather site.

APPENDIX D

Bureau of Land Management IM Number 2010-164

UNITED STATES DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT
WASHINGTON, D.C. 20240
<http://www.blm.gov>

July 22, 2010

In Reply Refer To:
4710 (260) P

EMS TRNASMISSION 07/23/2010
Instruction Memorandum No. 2010-164
Expires: 09/30/2011

To: All Field Officials (except Alaska)
From: Assistant Director, Renewable Resources and Planning
Subject: Public Observation of Wild Horse and Burro Gathers

Program Area: Wild Horse and Burro Program

Purpose: The purpose of this Instruction Memorandum (IM) is to establish policy for public observation of wild horse and burro (Wild Horse and Burro) gathers.

Policy/Action: The Bureau of Land Management's (Bureau of Land Managements) policy is to accommodate public requests to observe a gather primarily through advance appointment, on days and at times scheduled by the authorized officer. Planning for one public observation day per week is suggested.

Specific viewing opportunities will be based on the availability of staff with the necessary expertise to safely and effectively host visitors, as well as other gather-specific considerations (e.g., weather, terrain, road access, landownership). The public should be advised that observation days are tentative and may change due to unforeseen circumstances (e.g., weather, wildfire, trap relocation, equipment repair, etc.). To ensure safety, the number of people allowed per observation day will be determined by the District Manager (DM) and/or Field Office Manager (FM) in consultation with the Contracting Officer's Representative/Wild Horse and Burro Specialist (COR) for the gather.

The DM/FM has the primary responsibility for effectively planning and managing public observation of the gather operation. Advance planning will:

- Ensure that the public have opportunities to safely observe wild horse gathers;
- Minimize the potential for disruption of the gather's execution;
- Maximize the safety of the animals, visitors, and the Bureau of Land Management and contractor personnel;
- Provide for successful management of visitors; and
- Ensure preparedness in the event of unanticipated situations.

The authorized officer will consider the following when planning for public observation of Wild Horse and Burro gather operations. Also see Attachment 1 (Best Practices When Planning for Public Observation at Gathers).

A. Safety Requirements

During Wild Horse and Burro gathers, the safety of the animals, the Bureau of Land Management and contractor personnel, and the public is of paramount importance. Because of the inherent risk involved in working with Wild Horse and Burro, the public will not be allowed inside corrals or pens or be in

direct contact with the animals. Viewing opportunities during the gather operation must always be maintained at a safe distance (e.g., when animals are being herded into or worked at the trap or temporary holding facility, including sorting, loading) to assure the safety of the animals, the Bureau of Land Management and contractor personnel, and the public.

Unless an emergency situation exists, the Bureau of Land Management's policy prohibits the transportation of members of the public in Government or Contractor-owned or leased vehicles or equipment. Therefore, observers are responsible for providing their own transportation to and from the gather site and assume all liability for such transportation.

The helicopter/aircraft is the private property of the gather contractor. Due to liability and safety concerns, Bureau policy prohibits observers from riding in or mounting cameras onto the aircraft. Should observers create unsafe flying and gathering conditions, for example, by hiring an aircraft to film or view a gather, the COR, in consultation with the gather contractor, will immediately cease gather operations.

The COR has the authority to stop the gather operation when the public engage in behavior that has the potential to result in harm or injury to the animals, employees, or other members of the public.

B. Planning for Public Observation at Wild Horse and Burro Gathers

During advance planning for public observation at Wild Horse and Burro gathers, the authorized officer should consult with the State External Affairs Chief or appropriate Public Affairs office. An internal communications plan will be developed for every gather (Attachment 2). It may also be helpful to prepare answers to frequently asked questions (Attachment 3).

C. Law Enforcement Plan

A separate Law Enforcement Plan should be developed if the need for law enforcement support is anticipated. The Law Enforcement Plan must be approved in advance by the Special Agent-In-Charge (SAC) or the State Staff Ranger of the State in which the gather is occurring.

D. Temporary Closure to Public Access

Under the authority of section 303(a) of the Federal Land Management and Policy Act (43 U.S.C. 1733(a)), 43 CFR 8360.0-7, and 43 CFR 8364.1, the authorized officer may temporarily close public lands within all or a portion of the proposed gather area to public access when necessary to protect the health and safety of the animals, the public, contractors and employees. Completion of a site-specific environmental analysis of the environmental impacts associated with the proposed closure and publication of a Federal Register Notice is required.

E. Gather Contract Pre-Work Conference

- Talk to the contractor about how many members of the public are expected and when. Discuss, and reach mutual agreement, about where best to position the public at the individual trap-sites to allow the gather to be observed, while accomplishing the gather objectives and assuring the humane treatment of the animals and the safety of the Bureau of Land Management and contractor personnel, and public.
- No deviation from the selected viewing location(s) should be made, unless the gather operation is being adversely impacted. The COR will consult with the gather contractor prior to making any changes in the selected viewing locations.
- The Bureau of Land Management's policy prohibits it from ferrying observers in the helicopter or any other mode of conveyance unless an emergency situation exists. Review this policy with the contractor during the pre-work conference.

F. Radio Communication

- Assure there is effective radio communication between law enforcement personnel, gather COR or project inspectors (PI), and other Bureau of Land Management staff.
- Identify the radio frequencies to be used.
- Communication with the gather contractor is through the Bureau of Land Management COR or PI, and from the gather contractor to the helicopter pilot. Direct communication between Bureau of Land Management personnel (other than the COR) and the helicopter pilot is not permitted, unless agreed upon by the Bureau of Land Management authorized officer and the contractor in advance, or the pilot is requesting information from the COR.

G. Pre- and Post-Action Gather Briefings

- Pre-briefings conducted by knowledgeable and experienced Bureau of Land Management staff can be helpful to the public.
- The pre-gather briefing is an opportunity to explain what individuals will see, why the Bureau of Land Management is conducting the gather, how the animals will be handled, etc.
- Post-action briefings may also be helpful in interpreting and explaining what individuals saw, what happened, why certain actions were taken, etc.

H. Summary of Individual Roles and Responsibilities

1. District and/or Field Office Managers
DMs and/or FMs are responsible for keeping the State Director and State Wild Horse and Burro Lead fully informed about the gather operation. Included is working with State/local public affairs staff to prepare early alerts if needed. An additional responsibility is determining if a law enforcement presence is needed.
2. Public Affairs Staff
The local district/field office public affairs staff is responsible for working with the Contracting Officers Representative, DM/FM, other appropriate staff, the State Wild Horse and Burro Program Lead, and the State Office of Communications to implement the communications strategy regarding the gather.
3. Law Enforcement
Develop and execute the law enforcement plan in consultation with District/Field Office Managers, the Contracting Officers Representative/Project Inspector, and the State's Special Agent-In-Charge or State Staff Ranger.
4. Contracting Officer's Representative (COR)/Project Inspectors (PI)
The COR and the PIs primary responsibility is to administer the contract and manage the gather. A key element of this responsibility is to assure the safe and humane handling of Wild Horse and Burro. The COR is also responsible for working closely with the DM/FM and Public Affairs Staff to develop the communication plan, and for maintaining a line of communication with State, District, and Field Office managers, staff and specialists on the progress of, and any issues related to, the gather operation.

Timeframe: This instruction memorandum is effective immediately.

Budget Impact: Higher labor costs will be incurred while accommodating increased interest from the public to attend gather events. The budget impacts of unanticipated situations which can occur during Wild Horse and Burro gathers include substantial unplanned overtime and per diem expense. Through advance planning, necessary support staff can be identified (e.g., law enforcement, public affairs, or other Bureau of Land Management staff) and the cost-effectiveness of various options for providing staff support can be evaluated. In situations where public interest in a gather operation is greater than anticipated, the affected state should coordinate with the national program office and headquarters for assistance with personnel and funding.

Background: Heightened interest from the public to observe Wild Horse and Burro gathers has occurred. Advance planning for public observation of gather operations can minimize the potential for

unanticipated situations to occur during Wild Horse and Burro gathers and assure the safety of the animals, the Bureau of Land Management and contractor personnel, and the public.

Manual/Handbook Sections Affected: No change or affect to the Bureau of Land Management manuals or handbooks is required.

Coordination: This IM was coordinated among WO-200 and WO-260 staff, State Wild Horse and Burro Program Leads, field Wild Horse and Burro Specialists, public affairs, and law enforcement staff in the field.

Contact: Questions concerning this policy should be directed to Susie Stokke in the Washington Office at (202) 912-7262 or Lili Thomas in the National Program Office at (775) 861-6457.

Signed by:
Bud C. Cribley
Acting, Assistant Director
Renewable Resources and Planning

Authenticated by:
Robert M. Williams
Division of IRM Governance,WO-560

APPENDIX E

Federal Aviation Administration General Operating and Flight Rules Sec. 91.119

Part 91 GENERAL OPERATING AND FLIGHT RULES

Subpart B--Flight Rules General

Sec. 91.119

Minimum safe altitudes: General.

Except when necessary for takeoff or landing, no person may operate an aircraft below the following altitudes:

(a) Anywhere. An altitude allowing, if a power unit fails, an emergency landing without undue hazard to persons or property on the surface.

(b) Over congested areas. Over any congested area of a city, town, or settlement, or over any open air assembly of persons, an altitude of 1,000 feet above the highest obstacle within a horizontal radius of 2,000 feet of the aircraft.

(c) Over other than congested areas. An altitude of 500 feet above the surface, except over open water or sparsely populated areas. In those cases, the aircraft may not be operated closer than 500 feet to any person, vessel, vehicle, or structure.

[(d) Helicopters, powered parachutes, and weight-shift-control aircraft. If the operation is conducted without hazard to persons or property on the surface—

(1) A helicopter may be operated at less than the minimums prescribed in paragraph (b) or (c) of this section, provided each person operating the helicopter complies with any routes or altitudes specifically prescribed for helicopters by the FAA; and

(2) A powered parachute or weight-shift-control aircraft may be operated at less than the minimums prescribed in paragraph (c) of this section.]

Amdt. 91-311, Eff. 4/2/10